Colorectal Screening in France: Organization in 23 Pilot Programs

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In France, in the year 2000, it is estimated that there were approximately 36,000 new cases of colorectal cancers (CRC), and 16,000 people died from CRC the same year. More than one-half of the cases are diagnosed at a late stage.

The screening model based on the use of FOBT in average risk subjects has proved to be efficient in terms of reducing mortality rates by 15–33%. The French experience in Burgundy showed that mass screening is applicable for large population groups with a good participation rate (> 60%) and results in a 15% decrease in mortality (J. Faivre, et al, 2004).

We will describe the organization of the implementation of 23 pilot programs, started in 2003, and based on administrative areas (department). The difficulties in reaching a high level of participation and compliance and the proposed solutions will be described.

To implement a mass screening programs in a large population, it is necessary to organize some pilot experiences to pinpoint the difficulties and feasibility of such an exercise. To obtain a good level of participation (>60%), general practitioners (GPs) must be strongly involved in the program. Training of GPs is the first step to organize.

TITLE: Results of the French Pilot Colorectal Cancer Screening Programme Between 2002–2004

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OBJECTIVES: In France, several randomized population-based studies have shown that screening for colorectal cancer (CRC) by faecal occult blood tests (FOBTs) can reduce CRC mortality. In 1998, French consensus conference guidelines on good practices for CRC screening recommended biennial FOBT in the 50–74 age group. In 2001, the French Department of Health decided to implement an organised screening programme. By the end of 2002, 22 districts were selected for a pilot phase: 12 districts began between 2002 and 2003 and 10 between 2004 and 2005. In the 22 pilot districts, 4,578,000 residents were targeted by the pilot CRC screening programme.

METHODS: Men and women were invited to consult general practitioners (GP) who provided them with an FOBT. Various recruitment methods (by areas or birth cohort) were used. Test reading is centralised. Screening group participants who had a positive test result were offered a full colonoscopy. Subjects were notified of their results by mail, and people with negative FOBT were advised to repeat the test 2 years later. Nonresponders received a first reminder letter, and persistent nonresponders received a postal invitation containing the test. Data are collected by districts and analyzed by the National Public Health Institute (InVS). Analysis was performed for data collected between 2002 and 2004 for 19 districts.

RESULTS: The global participation rate for districts having more than 12 months duration and having invited more than 50% of the population (8 districts), was 33%, ranging from 18 to 51%. These differences could be due to the kind of recruitment methods by areas or birth cohort. For the 19 districts, a total of 716,522 tests were performed, and the overall rate of a positive test result was 2.7% (2.0–3.8%) at the prevalent round. Currently, 11,578 colonoscopies have been performed by gastroenterologists (completion rate 96%). The colonoscopy complication rate (perforation or haemorrhage needing hospitalization) was 0.05‰. A total of 1,184 cancers and 1,863 adenomas were detected by screening. The cancer detection rates were 1.4‰ (0.2–2.5‰), higher in men than in women, and increased with age. The positive predictive value was 9.3% for cancer and 31% (17–45%) for adenoma. Cancer stages were not yet available for all cancers.
CONCLUSION: Results suggest that quality and efficacy indicators are in agreement with international references. However, participation rates have to be improved (more than 50% after 2 years). Recruitment methods by areas, closely involving GPs or by birth cohort will be analysed to assess their impact. In 2005, the French Health Minister decided to accelerate recruitment of new districts, and national coverage of the programme should be achieved by the end of 2006.

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Colorectal cancer screening is becoming a common practice in many western countries. Technologies evaluated for their potential role in screening include a variety of guaiac-based and immunological fecal occult blood tests (FOBTs), endoscopic procedures (e.g., sigmoidoscopy, colonoscopy), and radiological technologies (e.g., double contrast barium enema, colonography, and “virtual” colonoscopy). These technologies differ in level of scientific evidence of efficacy, in tumor detection characteristics, in degree of invasiveness and acceptability, in potential for deleterious effects and in cost.

Most western countries have chosen the FOBTs as their means of average-risk population screening. Modern, still experimental approaches suggest the use of tumor genetic markers in feces as a means of high-sensitivity, high-specificity detection of tumors. Lessons learned from wide-scale population screening for breast cancer could be employed for colorectal cancer screening, too. Quality indicators of both the process and intermediate outcomes should be established. Such indicators will include an expected cancer detection rate (with limitations with regards to setting an adenoma detection rate), rate of further tests and the false positive rate stemming from it, tumor size characteristics, interval cancers, and more.

Data from one component of the national Israeli colorectal screening program with more than 200,000 tests will be used to demonstrate similarities and differences between breast and colorectal cancer screening processes.
Comparing Yield of FOBT and FS in an Average Risk Population: Results After Two Screening Rounds

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To compare the yield of neoplasia of fecal occult blood test (FOBT) and sigmoidoscopy (FS) in a screening population.

Population-based multicenter randomized trial comparing 4 screening protocols: (1) biennial immunological FOBT, (2) “once-only” FS, (3) FS followed by biennial FOBT for screenees with negative FS, and (4) patient’s choice between FS and FOBT. A random sample of men and women aged 55 to 64 was drawn from general practitioners’ (GP) rosters. GPs were asked to exclude patients with a history of colorectal cancer (CRC), adenomas, inflammatory bowel disease, recent (2 years) colorectal endoscopy or FOBT, or two first-degree relatives with CRC. Eligible subjects were randomized, within GP, and were mailed a personal invitation. Nonresponders in the FS arms were offered two additional appointments at 12 and 24 months after the initial invitation. Only subjects allocated to FOBT (group 1 – N=18284) or to FS (groups 2 – N=5057, and 3 – N=20412) are included in this analysis, aimed at estimating the cumulative detection rate (DR) per invited persons.

The DR was 0.11% for CRC and 0.53% for advanced adenomas (villous component >20%, or high-grade dysplasia or size 10 mm) in group 1 (5,917 people had at least one FOBT and 34,23 had two); the corresponding figures for group 2 (1,380 people examined) were 0.10% and 1.56%. The DR in group 3 (5,569 people had a FS and 3,161 had also a FOBT) was FS: 0.11%, advanced adenoma: 1.32%; FS+FOBT: CRC: 0.14%; advanced adenoma: 1.40%.

After two FOBT screening rounds, the cumulative yield of advanced adenomas was about one-third for FOBT compared to FS, while the CRC yield was similar. The participation to FOBT (in the screening programs recently started in the study areas attendance is above 40%) might influence the estimates of the relative difference in neoplasia yield.
TITLE: Colorectal Cancer Screening in Finland as Public Health Policy

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KEYWORDS: public health programme, screening, colorectal neoplasms

BACKGROUND: Colorectal cancer screening was launched in Finland in 2004 in 22 piloting municipalities.

OBJECTIVE: The aim was to find out whether a screening programme within the public health care could result in a similar mortality reduction found in screening trials.

METHODS: The target population consisted of men and women between 60 and 69 years. During the first year, only those of age 60, 62, or 64 were screened. Those invited were randomly selected within municipality, age-cohort, and gender. The screening test was a fecal occult blood test for three different sample sessions, and it was mailed to invitees.

RESULTS: The compliance was good—75% out of those invited (N=4,539) took part in screening (81% of women and 69% of men). Those who had any blood in their feces were referred for colonoscopy. In total, 63 people (1.8%) were referred for colonoscopy, and test renewals were sent to 132 (3.9%). A full colonoscopy was performed for 54 people, and colorectal cancer was found in 5 persons.

Future screening will be decided after three first-years’ experience and the preliminary findings support screening as part of public health care.